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Willis

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(54) **SYSTEMS AND METHODS FOR
MONITORING POSITIONING OF A
MACHINE BY UTILIZING A VIRTUAL IMU**

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(57) **ABSTRACT**

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CPC **G01C 21/16** (2013.01); **B62D 53/005**
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A system for monitoring positioning of a machine is disclosed. The system includes an IMU located at a first location on the machine and configured to generate positioning data associated with the first location. The system includes a machine controller operatively associated with the machine. The machine controller is configured to determine predicted positioning data for a second location on the machine based on positioning data associated with the first location. The machine controller is further configured to generate a virtual IMU at the second location based on the predicted positioning data for the second location, wherein the virtual IMU generates virtual positioning data for the second location. The system further includes an application controller operatively associated with the machine controller and configured to use the virtual positioning data as input data for one or more machine-associated applications.

(58) **Field of Classification Search**
None
See application file for complete search history.

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20 Claims, 5 Drawing Sheets

